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**Operational Reserves:  
Still Valid After All These Years?**

**A Monograph  
by**

**Major James M. Milano  
Armor**



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## **ABSTRACT**

**OPERATIONAL RESERVES: STILL VALID AFTER ALL THESE YEARS?**  
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This monograph investigates the viability of the requirement for the retention and maintenance of operational-level reserves, given the emergent U.S. Army doctrinal concept of AirLand Operations. Additionally, with the rapid mobility and precision lethality with which our forces are capable of operating on the modern battlefield, as most recently demonstrated in the Persian Gulf War, the monograph addresses the issue of whether an operational commander needs to maintain a reserve force as a hedge against uncertainty.

The monograph first examines theoretical and current doctrinal literature regarding the use of operational reserves. Next, Napoleon's 1805 campaign which culminated in the battle of Austerlitz shows the classical, traditional use of operational reserves in which these forces were initially held back from the action to be committed at the decisive moment and place on the battlefield. Following this, the U.S. Army's operations in the Argennes in the Battle of the Bulge demonstrate how a reliance on superior mobility and firepower to react to unforeseen threats from less threatened areas of the theater can compensate for a lack of operational reserves. The last historical analysis is of the Soviet Union's 1945 Manchurian campaign against the Japanese in which certain preconditions were fulfilled before the campaign began, thereby alleviating the requirement for use of operational reserves.

The monograph concludes that by establishing through proper analysis and assessment the right preconditions before operations, and by relying on superior mobility and enhanced lethality, the U.S. Army in a joint environment can execute successful operational maneuver without maintaining operational reserves. This allows the simultaneous employment of all available combat power against the enemy, resulting in the commitment of overwhelming force at the decisive time and place.

Regarding current doctrinal definitions of operational reserves, more precision is needed. Operational reserves must be viewed differently from tactical reserves. As Clausewitz discussed, while the tactical commander designates a reserve to prolong his battle and react to unanticipated enemy actions, and thereby commits his forces sequentially, the operational commander must strive for the simultaneous commitment of overwhelming force. This will preclude the creation of tactical liabilities as a result of withholding forces in operational reserve.

Finally, operational artists must be willing to rely on generating operational reserves from less threatened areas, accepting prudent risks, and ensuring that battles and engagements are properly resourced and planned to create the tactical successes that produce operational success. By reducing uncertainty to an absolute minimum, commanders must be able to correctly anticipate the flow of the campaign to ensure the maximum concentration of decisive combat capability.

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## **The Operational-Level Reserve: Still Valid After All These Years?**

### **Introduction**

Throughout the history of warfare, commanders in battle generally have had as a reserve troops other than those explicitly engaged in combat. In addition to this subtracted force, all of the forces not committed inextricably to combat with the enemy also constituted reserves.<sup>1</sup> The purpose of these reserve forces varied. They were often employed to counter unforeseen threats created by unanticipated enemy action. At other times the commitment of reserve forces reinforced a threatened sector of the battlefield. Reserve forces also served as a commander's counterattack force in the defense and as his exploitation or pursuit force in the offense. One characteristic of the employment of reserves remained constant, though, and that was that usually they were initially unengaged and separate from the fighting.

These functions applied generally to the tactical level of warfighting, and, in fact, they still apply today at that level. FM 101-5-1, Operational Terms and Graphics, defines a reserve as "that portion of a force withheld from action at the beginning of an engagement so as to be available for commitment at a decisive moment."<sup>2</sup> In virtually all U.S. Army tactical warfighting manuals, the commander is advised to always maintain a portion of his force in reserve.

The evolution of the operational level of war--the link between strategic and tactical military actions at which major operations are planned and conducted--did not change either the purpose or necessity of reserve forces. Operational art was developed and practiced during the

Napoleonic period, in which large, self-contained units were maneuvered for the purpose of shaping a decisive battle. This increase in the size of forces was met with a corresponding increase in the size of reserves. In either the offense or the defense, the operational practitioner had to learn to properly use reserves. Creating and maintaining reserve forces and the location and timing of their commitment was, and some would argue still is, a decisive factor in operational art.<sup>3</sup>

Today, operational reserves are considered to be forces in a theater of operations established within a corps or higher formation for the execution of a specific operation. Not addressed in this definition is whether these forces are committed or uncommitted. FM 101-5-1 defines an uncommitted force as one that is not in contact with the enemy and "is not already deployed on a specific mission or course of action." A committed force, on the other hand, is either in contact with the enemy or deployed on a specific mission or operation "which precludes its employment elsewhere."<sup>4</sup> Following this logic, then, if operational reserves are established for the execution of a specific operation, they are committed forces and, therefore, unavailable for employment elsewhere. Are they, then, truly reserves, or do they in this context represent forces to be introduced sequentially in a major operation? Must they be withheld from action at the beginning of an engagement, or can they be generated from other less committed forces? Additionally, in the definition "operational reserves" in FM 101-5-1, is the reference to reserves at the operational level of war or simply to reserves forces as part of an operation?<sup>5</sup> Last, must operational reserves be a force, such as a division or a corps, or can they can exist

as a capability, such as superior mobility or firepower?

The changing threat, arms control negotiations, and the cost of maintaining modern armed forces will result in battlefields that are less dense and increasingly dominated by technology and mobility. More significantly, the U.S. Army's latest warfighting concept, known as Air Land Operations, requires forces to quickly maneuver long distances, rapidly gain positional advantage over a vulnerable threat, and conduct violent, decisive close combat. Technology will provide the opportunities to dictate how the battle will be conducted. Furthermore, it will enable operational commanders to see significant enemy forces in all types of weather and at great depth, and to decide which forces to attack with a variety of precision systems of escalating lethality.<sup>6</sup>

In the future, attrition operations against strength or weakness will be avoided in favor of precision destruction of those critical elements necessary to defeat the enemy. At the operational level, nonlinear operations will dramatically increase the requirement to rapidly synchronize units in a short period of time without the full planning time on the battlefield. Commanders will need to seize and maintain the initiative, which will then permit them to attack where, when, and what they choose, while forcing the enemy to react and try to adapt to our operations.<sup>7</sup>

Given this emergent concept regarding the conduct of present and future warfare, does the requirement for an operational reserve continue to have viability? With the rapid mobility and precision lethality with which our forces are capable of operating on the modern battlefield, as most recently demonstrated in the Persian Gulf War, must a commander



maintain a reserve force as a hedge against uncertainty? Should a force that is to be sequenced operationally be termed a reserve?

This monograph will attempt to answer these questions by first examining theoretical and doctrinal literature regarding the use of operational reserves. Three historical examples will then be analyzed to gain a perspective of how operational reserves were or were not used in the execution of warfighting at the operational level. Napoleon's 1805 campaign which culminated in the battle of Austerlitz will show the classical, traditional use of operational reserves in which these forces were initially held back from the action to be committed at the decisive moment and place on the battlefield. Next, the United States Army's operations in the Ardennes in the Battle of the Bulge will show how reliance on superior mobility and firepower to react to unforeseen threats can compensate for a lack of operational reserves. The last historical campaign analysis will be of the Soviet Union's 1945 Manchurian campaign against the Japanese. This campaign illustrates how fulfillment of certain preconditions before a campaign begins can alleviate the requirement for use of operational reserves.

### The Theory of Operational Reserves

Clausewitz wrote in On War that forces should be held in reserve at the operational level according to the degree of operational uncertainty that existed. This uncertainty decreased the farther one got from tactics and into the operational realm, almost disappearing at the political level. Even if an operational reserve existed, its value decreased the less specific its intended employment.<sup>8</sup>

According to Clausewitz, a reserve had two distinct purposes: one was to prolong and renew the action; the other, to counter unforeseen threats.<sup>9</sup> The first reason presupposed the value of the successive use of force, and therefore did not belong to the operational level of war. Successive use of force at the tactical level postponed the main decision until the end of the action. Force could be used successively because the tactical commander would want fresh forces, initially held out of the fighting, to defeat or weaken the enemy's reserves once they were committed.

The second purpose for a reserve--countering unforeseen threats--was valid at the operational level only when emergencies were conceivable. The reason for this was that Clausewitz's concept of economy of force required that all available forces should be involved at the operational level so as to ensure that no part of the whole was idle.<sup>10</sup> According to him, the best strategy was always to be very strong, first in general, and then at the decisive point.

Clausewitz further wrote that as many troops as possible should be brought into the engagement at the decisive point.<sup>11</sup> To him, the point at which the concept of an operational reserve began to be contradictory was not difficult to determine. This was when the decisive stage of the battle had been reached. The operational commander needed to ensure overwhelming strength at the "really vital point." Relative superiority at the decisive point was much more frequently based on the correct appraisal of this decisive point, on suitable planning from the start, which lead to the appropriate disposition of forces.<sup>12</sup>

This obviously depended on an accurate intelligence estimate of the

enemy dispositions, as well as on the capabilities of the commander. The better the assessment of enemy strengths and weaknesses, the more knowledge that was acquired regarding how the enemy fought, and the greater the mental capacities of the commander, the more uncertainty could be reduced on the battlefield. Referring to what Clausewitz wrote about forces being held at the operational level according to the degree of operational uncertainty, it makes sense that the less uncertainty there was, the less the need for reserves.

Additionally, Clausewitz wrote about a vital difference between the operational and tactical levels of war. Tactical successes, those attained during the course of an engagement, occurred usually during the phase of "disarray and weakness."<sup>13</sup> Operational success, conversely, which was the overall effect of the engagement, already lay beyond that phase. The consequence of this was that tactically force could be used successively, while at the operational level force should only be used simultaneously. Retention of reserves did not hold true in the operational realm. Once operational success had been achieved, a reaction was less likely to set in because the crisis had already passed.<sup>14</sup>

Clausewitz's point here was that the operational commander should not hold forces in reserve at the risk of creating a tactical liability on the battlefield. This was even more essential if the operational commander had a clear picture of the enemy forces, dispositions, intentions, etc. He wrote that "while a tactical reserve is a means not only of meeting any unforeseen maneuver by the enemy but also of reversing the unpredictable outcome of combat when this becomes

necessary, strategy [operational warfighting] must renounce this means...."<sup>15</sup> Setbacks in one area could, as a rule, "be offset only by achieving gains elsewhere, and in a few cases by transferring troops from one area to another. Never must it occur to a strategist to deal with such a setback by holding forces in reserve."<sup>16</sup>

An operational reserve became less useful, less essential, and more dangerous to use the more inclusive and general its intended purpose. Again, the concept of an operational reserve became self-contradictory when the decisive stage of the battle had been reached. All forces were to be used to achieve it. To withhold combat forces for use after this decision was what Clausewitz called an absurdity.<sup>17</sup> This notion of not withholding any forces during the decisive stage of the battle (i.e., not creating a tactical liability) has direct significance today. TRADOC PAM 525-5, AirLand Operations, defines the stages of the operational cycle as detection/preparation, establishing the conditions for decisive operations, decisive operations, and force reconstitution. This point will be further analyzed later in the monograph.

As an interesting contrast to Clausewitz, Jomini, in his classic The Art of War, wrote of reserves having an important part in modern warfare, and he distinguished between two kinds of reserves. Battlefield reserves were to be positioned between the base of operations and the front so as to give an army the advantage of having an active reserve on the battlefield. This reserve force could move to the support of "menaced points" without weakening the active army (those forces already engaged).<sup>18</sup> Clearly, Jomini envisioned reserves acting as a "fire brigade," moving from one threatened point to another. The other

kind of reserves were those in training, by which he meant replacements or reinforcements.<sup>19</sup>

In his book Race to the Swift, Richard Simpkin devoted a chapter to discussing the defense of the NATO central region against a large-scale Soviet conventional attack. In this scenario, he described a twofold purpose for an operational reserve. Being held well back from the forward edge of the battle area, it could have been used to clear up a runaway breakout or to counter a strategic turning movement. Second, once containment had been achieved, its existence would have ensured fresh troops were available to execute the counterstroke needed to reestablish the situation.

This counterstroke was part of an overall concept Simpkin called the anvil and triple hammer. The anvil consisted either of troops or of fire, and its mission was to hold the attacker while a succession of hammers were inflicted upon the attacking force. The first of these hammers was a low-level tactical counterattack to restore or take pressure off of the anvil. The second hammer was a higher-level tactical counterattack. It could either maneuver in depth behind the attacker's leading formation--thereby enveloping the attacker--or it could attack through the anvil and disrupt the attacker as if with a battering ram. The third hammer, which Simpkin termed the operational one, delivered the counterstroke and must, by definition, have had a direct effect on the strategic situation. It was for this purpose, that of delivering the counterstroke, that forces would have been held out of the tactical fight and would subsequently have been used as an operational reserve.<sup>20</sup>

Simpkin's hammer and anvil concept is viable provided, first of all,

the anvil holds. Given a limited force, maintaining an operational reserve will create shortfalls at the tactical level, with troop strength as well as logistical capabilities. If there is insufficient force at the tactical level to create a viable anvil, the succeeding hammer blows may be irrelevant. This was the problem facing NATO when preparing to defend against a Soviet attack, and Simpkin points out that, as a result, NATO's central region had no operational reserves. A second point regarding Simpkin's concept is that if the operational hammer, the counterstroke force, is indeed committed to a deep strike of strategic significance, should it properly be called a reserve rather than a committed force?

As described earlier, an operational reserve is established for the execution of a specific mission, and a committed force is deployed on a specific mission which precludes its employment elsewhere. Given these definitions from FM 101-5-1, the operational reserve is a committed force, one to be committed in a predetermined operational sequence, and Simpkin's use of the term is appropriate in his anvil and hammer concept. However, this force could not be used to, in his words, "clear up a runaway breakout or to counter a strategic turning movement,"<sup>21</sup> since it is already committed to a specific mission, that of the operational hammer. Herein lies much of the discrepancy regarding the utility and viability of the term operational reserve.

### Current and Emerging Doctrine

There is confusion and contradiction in current doctrinal literature regarding the purpose of operational reserves. FM 100-5, Operations,

provides that the paramount concern of the large unit commander during battle will be to defeat the enemy's operational reserves and commit his own at the decisive time and place. Friendly operational reserves--corps or divisions held in reserve by the large unit commander--will be used to exploit the results of battle by penetrating enemy defenses completely. Offensively, reserves serve mainly to exploit tactical success or to pursue a fleeing enemy. Defensively, the missions involve executing the commander's counterstroke, initiating the counteroffensive, covering a withdrawal, engaging the enemy's operational reserve, or exploiting tactical success. These missions are classical, Napoleonic in nature and are the extent to which the subject of operational reserves is covered in the U.S. Army's keystone warfighting manual.<sup>22</sup>

FM 100-7, The Army In Theater Operations, is a draft manual intended to provide an operational-level perspective of warfighting. It is a guide for Echelons Above Corps (EAC) and other Army forces employed as part of a joint organization. In discussing Army operations in war, included in the Army's employment responsibilities is the requirement for the commander of theater Army forces to generate operational reserves, which may be forces or materiel. Interestingly, the manual continues that "these reserves generally come from other economy of force areas when required as opposed to standing designated reserves."<sup>23</sup> A qualification to this is that defensively, there may exist the requirement for dedicated operational reserves depending on the situation. What is significant is that these reserves need not be separate and distinct; rather, they may be drawn from other less-threatened areas in the theater. As will be discussed later, this is

how the 12th Army Group commander, LTG Omar Bradley, chose to operate immediately before and during the Battle of the Bulge.

The U.S. Army's Corps Operations manual, FM 100-15, essentially written for the tactical level of warfighting though acknowledging that corps may fight independently and thus in an operational role, contains guidance slightly different from that described above. "True reserves," according to the FM, do not have a planned, subsequent mission. Their eventual commitment is dependent solely on the flow of the battle. Reserves at corps level should be tasked for possible contingency-related missions through "be prepared" tasks in the corps plan. Offensively, they are to reinforce or maintain the momentum of the attack. Defensively, the reserve may be the corps commander's principal means of deciding a battle in progress or affecting future battles.<sup>24</sup>

What is provided in these three manuals for higher-level operations is conflicting guidance regarding the formation, purpose, and role of operational reserves. FM 100-5 considers operational reserves committed forces with specific missions. FM 100-7 says these forces may be dedicated, or they can be generated from less threatened areas of the theater as opposed to standing designated reserves. Finally, FM 100-15 describes true reserves as having no planned, specific missions and are to be used essentially as a fire brigade--purely reactionary.

In an article entitled "A CINC's View of Operational Art,"<sup>25</sup> General Crosbie Saint attempts to clarify, among other aspects of operational warfighting, the employment of operational reserves. According to General Saint, the employment of reserves at the operational level is "using engaged or unengaged forces in future time."<sup>26</sup> He believes that



the word "reserve" implies a force with no known future purpose and is, therefore, solely for reaction to an enemy action.

The reserve, continues General Saint, is not a fire brigade to be used only when the commander is in dire straits. Rather, it should be used as an attack force, one that is saved out of battle so as to be able to take advantage of a vulnerability of the enemy, to execute the next step of the battle, or to complete the scheme of maneuver. Reserves are "instruments of integration," the tools for army group commanders to win campaigns. His technique for employing reserves is to task commanders to have certain forces available within a designated time period. In other words, reserves are generated when they are needed, within the overall scheme of maneuver.<sup>27</sup>

This concept for generation and employment of operational reserves is consistent with the aforementioned doctrinal publications: it tasks reserves with specific missions, and these forces are generated from committed units. Where it lacks clarity, however, is if operational reserves are forces that are sequenced as part of an overall scheme of maneuver, are they indeed reserves, or merely the committed forces of a campaign plan? Furthermore, how does this view of operational reserves reconcile with the U.S. Army's emerging warfighting concept known as AirLand Operations?

The central theme of TRADOC PAM 525-5 is that emerging technologies provide unprecedented opportunities to the operational-level commander to see the battlefield more clearly and, with long-range precision systems and operational maneuver, to dictate the terms of battle. Given these capabilities, the operational commander can

synchronize his assets to provide overwhelming combat power at critical and decisive points in the battle. In other words, the operational commander can, better than ever before, create the conditions for tactical success, while at the same time not induce tactical liabilities. If a situation arises requiring the use of combat power to defeat an enemy, its application should be timely, overwhelming, and decisive to achieve the desired results quickly with minimal U.S. and allied casualties.

The application of operational fires and maneuver, coupled with the emergent superiority of our applied technologies, will enable the U.S. Army to dictate the terms of future battle. Operational maneuver provides the commander the opportunity to attack selected elements of the enemy force to prevent it from interfering with his plan, and to avoid the attrition of mass-on-mass warfare inherent in linear operations. This will require superior intelligence, the ability to shape or condition the battlefield throughout the operational depth, and the agility to quickly exploit conditions. The coordination required to do this will be made possible by new systems like the Joint Surveillance and Target Attack Radar System (JSTARS), which can provide the air and land commanders with a consistent, real-time picture of the battlefield.

The Operational Cycle represents how the Army will conduct these operations. Stage I of the Cycle is the Detection and Preparation Phase. Here the commander must clearly see the battlefield, locate major enemy forces, and target selected critical portions of the enemy force. He must gain and maintain the initiative. Operational fires must be integrated with joint reconnaissance, intelligence, surveillance and

target acquisition (RISTA) means. Using deception, psychological operations, employment of robust cavalry and counter-RISTA forces, and by maintaining agile attack systems, such as attack helicopters and ATACMS (Army Tactical Missile System), the commander maintains security during this stage.

The second stage of the Operational Cycle is Establishing Conditions for Decisive Operations. In this stage the commander isolates selected enemy forces in time and space to create favorable conditions for the employment of air and ground maneuver forces. Additionally, the conditions for decisive maneuver are established by synchronizing joint fires such as long-range artillery cannon, missiles, rockets, attack aviation, tactical air assets, while concurrently positioning maneuver assets. By attacking, separating, and defeating designated enemy forces, the operational commander makes it difficult for the enemy to mass.

Stage III is the Decisive Operations stage. Given the appropriate conditions established in stages I and II, the commander maneuvers forces to decisively overwhelm the enemy and exploit the advantage of initiative. The early application of overwhelming combat power is critical to operational success. Essentially stage III reflects the application of massed fires and synchronized maneuver. Force agility, mobility, and rapid generation of combat power are necessary characteristics of this stage. The maneuver force has been initially dispersed for protection, but is now maneuvered by the operational commander to gain the best possible positional advantage over the enemy.<sup>28</sup>

As Simpkin described in another book, Deep Battle, the essence of

maneuver is placing a threat in a position of advantage, the threat taking the form of mobile protected firepower. Given effective electronic surveillance and target acquisition (operational intelligence), coupled with modern conventional firepower, it is possible to place a threat in a position of advantage without putting force there. An attack or armored helicopter force accomplishes this aim.<sup>29</sup>

The final stage of the Operational Cycle is Force Reconstitution, during which the commander prepares for further follow-on or new major engagements or campaigns.

As mentioned, forces will initially be deployed in a dispersal area, and then concentrated to conduct decisive operations. Following this, the forces will again disperse for protection. This cycle of operations will depend on the ability to see the enemy while denying him the same capability. This is called "dominating the sensor duel." Additionally, the commander must be able to find and track the enemy, and prejudge his actions. This will provide friendly forces the mobility differential needed to concentrate forces for decisive operations. This mobility differential will compensate for the reduced force-to-space ratios that will exist on tomorrow's battlefield. Gaps created by these reduced ratios will require a defense based on mobility and maneuver with no mass of forces waiting in reserve. Rather, fewer (but more mobile) forces and more high-technology weapons will operate in an operational maneuver cycle of dispersal/concentrate/attack/dispersal.<sup>30</sup>

When defending, the operational commander will need to generate operational reserves from units in contact. Ways to accomplish this are by decreasing operational frontage, falling back on lines of

communication, or by assuming risk in less threatened areas. Essential to this will be superior mobility and precision firepower. Offensively, all force available to the operational commander must be brought to bear at the decisive point to produce a synergistic, decisive effect once the correct preconditions have been established before the commitment to decisive operations. The following historical examples will illustrate how these measures have been applied before.

### Austerlitz

Napoleon's use of reserves at Austerlitz provides a clear example of how the skillful commitment of these forces at the decisive time and place on the battlefield can produce operational success. Napoleon's reserves, initially separate from the fighting and protected by terrain, were given two specific missions. They were to either exploit a rupture of the Austrian line and envelop the committed Austrian main force, or they were to reinforce his right flank if the Austrians gained success there. Given these missions, they were a critical element of Napoleon's ultimate decisive success on this battlefield.

Following Napoleon's capture of 50,000 Austrians at Ulm in the fall of 1805, he set off to destroy the Russian Army commanded by Mikhail Kutusov. Napoleon drove down the Danube Valley and then north into Bohemia. The Russian evaded Napoleon's maneuvering and slipped away to join 40,000 fresh Russian troops under General Buxhowden and Czar Alexander I near Olmutz. On 19 November, Napoleon halted the Grande Armée (Grand Army) at Brunn, approximately fifty miles west of Olmutz. The Russians had linked up with an Austrian army of some 15,000 troops

under Emperor Francis I. Napoleon now faced an Allied army of approximately 90,000 troops.<sup>31</sup>

Napoleon, significantly outnumbered, had with him approximately a 50,000-man army at Brunn, consisting of IV and V Corps, the Cavalry Reserve Corps, and the Imperial Guard. Napoleon had been consumed with strategic concerns as he had advanced deep into Germany along the Danube River Valley, and this resulted in a significant depletion of his strength.<sup>32</sup> The II, VI, and VII Corps had been detached to protect the southern flank of his strategic penetration. I Corps was dispatched to Iglau, 60 miles from Brunn, to guard against a threat from the Prussians, and III and VIII Corps had been left to hold Vienna, which had been captured while pursuing Kutusov.

Napoleon's strategic aim was to destroy the Allied army at Olmutz in a decisive battle. Slightly outnumbered, he had to deceive the Allied commanders into believing he was weak. This would then compel them to attack, while he rapidly concentrated his own Army to achieve close to numerical parity. This concentration would involve Bernadotte's I Corps moving from Iglau and Davout's III Corps coming up from Vienna. By advancing from Brunn, though, Napoleon might compel the Allies to fall back on their reinforcements. Using an elaborate deception plan, Napoleon deceived the Allies into thinking the French Army was retreating, even going so far as to abandon the dominant terrain of the battlefield--the Pratzen Heights. The Allies quickly occupied it.<sup>33</sup>

Having lured the Allied Army onto the ground on which he chose to fight them, Napoleon then deployed his Army (see Appendix A). Lannes' V Corps and Murat's Cavalry Corps would conduct a supporting attack on the

French left between the Moravian Alps and the Pratzen Heights. Soult's IV Corps, with only one infantry division and one cavalry division, would be deliberately thinned out on the right of the French line with a mission of defense. Upon arrival, Davout's III Corps would support Soult's IV Corps, and I Corps would serve as an exploitation force. Initially in reserve behind the Zurlan would be the Imperial Guard and Oudinot's division of grenadiers.

Napoleon's operational plan, the concept by which he would create the conditions for tactical success on the battlefield, was to induce the Allied army to attack his deliberately weakened right. The Allied intention of such an attack would cut Napoleon's line of retreat to Vienna and envelop the French army against the difficult terrain of the Moravian Alps to the north. Napoleon desired the Allies to concentrate their forces on their left against his right so as to deliberately weaken their center. This weakened Allied center was the main object of Napoleon's deception, for against this weakened center he would commit his masse de rupture and split the Allied army. Napoleon would then use his reserves to exploit the breakthrough and subsequently trap the separate wings of the Allied army against the ponds to the south and the Moravian Alps to the north.<sup>34</sup>

The Allies had obligingly formulated a plan that fit nicely with Napoleon's concept of battle. Their plan was to turn the French right by attacking over the Goldbach stream in the vicinity of Tellnitz and Zokolnitz, followed by a turn northward to envelop the French as they retreated toward Brunn. The main Allied attack on their left was to be made by the Russian General Buxhowden. Bagration's army on the Allied

right was to conduct a supporting attack to pin French forces and prevent them from moving south. The Allied reserve consisted of the 8500 elite troops of the Russian Imperial Guard, commanded by Grand Duke Constantine.

After receiving a final reconnaissance report, Napoleon modified his initial dispositions early on the morning of 2 December. An infantry and a cavalry division of Soult's IV Corps were to defend the French right until the arrival of Davout's III Corps. The French main attack would be made in the center by Vandamme's and St. Hilaire's divisions of Soult's IV Corps, which were well concealed on a reverse slope, to seize the Pratzen Heights. Lannes' V Corps and Murat's Cavalry were to fight defensively to pin Bagration's army and prevent it from interfering with the main battle for the Pratzen Heights and the terrain to the south. The rest of the army constituted a reserve force that would be committed according to circumstances and would be used to influence the battle. Bernadotte's I Corps was to support IV Corps in the center but could have been used elsewhere. An additional reserve force consisted of Oudinot's division of grenadiers and the Imperial Guard.<sup>35</sup>

If Napoleon had had to commit the Guard and Oudinot to strengthen his southern flank, he would still have had an exploitation force in the form of Bernadotte's I Corps. Operational flexibility, therefore, would not have been lost to Napoleon by committing his reserve. With Bernadotte's corps, Oudinot's grenadiers, and the Imperial Guard all functioning as a reserve, Napoleon was in a position to both exploit success as well as counter unforeseen threats that arose. The principal reason for this was that the Austrian plan of attack was precisely what



Napoleon wanted them to do in order to conform to his operational plan. The Austrians committed the preponderance of their force to their main effort and consequently left little to confront Napoleon once he broke through their lines.

Napoleon had planned for the simultaneous use of all of his force, including providing his reserve with the specific mission of exploitation after the capture of the Pratzen Heights, or reacting to specific enemy threats to his plan. This fulfilled Clausewitz's notion of the use of force at the operational level. Even though forces were employed sequentially, they were committed simultaneously. The intended purpose of Napoleon's reserve forces was not inclusive and general, which is what Clausewitz cautioned against. While Napoleon provided for the possible employment of part of this force to his right if necessary, the principal mission of the reserve was to exploit success in the center, thereby fulfilling the designs of his operational plan.

The Allies began the attack at 0600 on 2 December. With the arrival of Davout's III Corps later in the morning, the situation soon stabilized on the French right. Lannes and Murat attacked successfully in the north to pin LTG Bagration's forces. Meanwhile, the Allies were completely surprised by the threat posed by Vandamme and St. Hilaire of Soult's IV Corps to their center. Sluggishness on the part of the Allies resulted in forces still on the Pratzen Heights, and Soult's men, told the Heights were unoccupied, clashed with several Russian units. Nonetheless, the French clung to the heights despite repeated Allied attacks to dislodge them.

As a result of the French tenacity, the Russian Imperial Guard was

committed to attack to retake the Pratzen. This attack met with initial success, catching Vandamme's division in the flank and rear.

Unfortunately, it was the last Allied formation to still be committed to the fighting and so its success could not be exploited by the Allies. To counter this new threat Napoleon committed the cavalry of the Imperial Guard along with a division from Bernadotte's I Corps. "The French, having retained the last reserve, finally gained the edge and drove the Russians back."<sup>36</sup> What remained of the Russian Imperial Guard began to flee the battlefield. Bernadotte pursued the fleeing Russian Imperial Guard.

At this point, Napoleon's orders were for Bernadotte to occupy and consolidate the Pratzen Heights, along with the infantry of the Imperial Guard and some of the grenadiers of Oudinot's division. The remainder of Napoleon's reserve, the Imperial Guard and Oudinot's division, along with Soult's divisions, were to maintain the initiative and momentum of the attack by enveloping Buxhowden from the north and east, while Davout attacked from the west. The ensuing cauldron decisively defeated the remaining Allies. Many were killed as they attempted to flee across the frozen lakes to the south.<sup>37</sup>

Exceptional operational and tactical fighting, expert commitment of reserves, and superior leadership decided the Battle of Austerlitz in Napoleon's favor. Regarding the commitment of reserves, Trevor Dupuy has cited that Napoleon recognized hard-fought combat usually was won by the side which last committed its reserves, and this certainly was the case at Austerlitz.<sup>38</sup> The disastrous consequence of the Allied plan was that the main attack absorbed every possible soldier that could be spared

and thereby deprived the Allies of a sufficient reserve with which to meet unexpected crises. The Russian Imperial Guard proved to be inadequate to meet this task. In hindsight, given the size of Napoleon's reserve forces and the Allied plan of attack, the Allies could not have maintained such a reserve force and successfully executed their plan.

Napoleon, once the enemy had committed all or most of his reserves, would typically commit his masse de decision through a weakened sector in the enemy's defense. Normally, a revealed enveloping attack would cause the enemy to weaken his center to try and defend against its flank threat. In this battle, Napoleon lured the enemy into thinking the French right was weak, while at the same time concealing a large portion of his army--which ultimately along with the reserve formed the masse de decision--behind high ground. The deception compelled the enemy to commit the majority of his force against the French right, to the extent of dangerously weakening its center. This may not have had such a disastrous impact on the outcome of the battle had the Allies realized the risk they were taking and committed more force to their reserve other than the comparatively weak Russian Imperial Guard.<sup>39</sup>

It is clear that the reserve Napoleon employed in this battle, the Imperial Guard and Oudinot's grenadiers, was a committed force. Although it had a "be prepared" mission of assisting on the French weakened right if trouble occurred there before the arrival of Davout's III Corps, its principal mission to which it was committed was to exploit the capture of the Pratzen Heights to envelop the enemy flank. Napoleon's reserve, therefore, was not intended for general use. As a result, it met with Clausewitz's guidance of avoiding the use of

operational reserves if their purpose was inclusive and, most importantly, if they were not employed at the decisive point of the battle.<sup>40</sup>

### The Ardennes

Having examined a decisive battle in which reserves were used in a classical sense--initially separated from the fighting and employed to exploit success or counter unforeseen threats, we will now analyze how the formation and retention of operational reserves may not be necessary given a decided advantage in mobility. U.S. Army operational commanders in the Battle of the Bulge relied on their units' superior mobility to transfer forces from less threatened areas of the theater to counter unforeseen enemy threats. This has direct relevance today as U.S. Army forces enter a new doctrinal era with some of the most lethal, mobile forces in the world.

By the fall of 1944, the Germans were on the defensive on both their eastern and western fronts. Hitler, in a desperate attempt to regain the initiative in the west, planned a major offensive, the object of which was to capture the port of Antwerp and split Bradley's 12th Army Group and Montgomery's 21st Army Group. The way Hitler intended to accomplish this was a massive armored attack through the Ardennes, a thinly held sector of the Allied line. Under the control of Model's Army Group B, five armored and twelve infantry divisions, organized into three armies, were concentrated along a 60 mile front. These were opposed by only four and one half American divisions, distributed along almost 100 miles of front. By the beginning of January the Germans would commit a

total of eight armored and twenty infantry divisions in an attempt to break out of the Ardennes, cross the Meuse River, and capture Antwerp (see Appendix B). The Allied forces would ultimately commit eight armored, sixteen infantry, and two airborne divisions to this battle.<sup>41</sup>

The Germans attacked with the 6th SS Panzer Army in the north, commanded by Dietrich. This was the main effort of the offensive and was to attack vicinity Liege, cross the Meuse River and drive to Antwerp. 5th Panzer Army in the center, commanded by von Manteuffel, was to conduct a supporting attack across the Meuse River vicinity Namur, continue the attack towards Brussels, and protect the southern flank of the main effort. 7th Army in the south was commanded by Brandenberger and had responsibility to protect the southern flank of the two panzer armies. Last, 15th Army, commanded by Blumentritt, would follow behind the 6th SS Panzer Army and protect the northern shoulder of the penetration.

Since the Normandy invasion in June 1944, the Allied armies had been on the offensive. November 1944 found the Allies on the borders of Germany, pausing to allow supply lines to catch up with the armies, particularly those of Bradley. At the Maastricht conference in early December, the senior Allied commanders decided on a general operational concept for continued offensive operations. Montgomery's 21st Army Group would continue to attack to seize crossings over the Rhine River and envelop the Ruhr Basin from the north. Simpson's Ninth (US) Army would go to Montgomery in early January. Bradley's 12th Army Group would continue to attack with Hodges' First Army to seize crossings over the Roer River and then Rhine to envelop the Ruhr Basin from the south.

Patton's Third Army, supported by Patch's Seventh Army or Dever's 6th Army Group, would continue its attack to close on and subsequently seize crossings over the Rhine farther south.<sup>42</sup>

For Hodges' First Army, seizing the Roer Valley dams was critical to successfully closing on and subsequently crossing the Rhine. Hodges, therefore, ordered Gerow's V Corps to attack on 13 December to seize key dams. North of Gerow Collins' VII Corps conducted a supporting attack. To the south of the V Corps attack, Middleton's VIII Corps was ordered to train replacements, rest, and refit after the costly Battle of the Huertgen Forest. The VIII Corps, which consisted of three infantry divisions and one armored combat command, was, consequently, to defend a sector approximately 140 kilometers wide, three times larger than what was then considered normal by U.S. Army doctrine for an equivalent force.<sup>43</sup>

Regarding reserve forces, Middleton had one armored combat command and four engineer battalions uncommitted. Other than some additional engineer battalions, Hodges had essentially no reserves. Likewise, Bradley's 12th Army Group had no operational reserves. This, however, was not unintentional. When Leonard Strong, SHAEF intelligence chief, discussed with Bradley his concerns about the enemy's capability of striking with his unlocated armored reserve in the Ardennes, Bradley replied he was aware of the danger and had earmarked certain divisions to move into the Ardennes should the enemy attack there. He would counter such a threat by directing the mechanized strength of the 1st and 3rd Armies against the enemy's flanks.<sup>44</sup>

The lack of reserves did not stop with Bradley's 12th Army Group. No

substantial reserves existed at SHAEF, either. Although the XVIII Airborne Corps, consisting of the 82nd and 101st Airborne Divisions, was formally designated as the SHAEF reserve, it was in need of refitting and rehabilitation after its withdrawal from Montgomery's line in Holland where it had participated in Operation Market Garden. Additionally, they were relatively weak in supporting weapons, but these Bradley felt he could supply from the unthreatened portion of his long line.<sup>45</sup> The issue of a SHAEF reserve had surfaced in early December when Eisenhower had directed that a strategic reserve be created and placed under control of Bradley for employment at his direction. The purpose of the reserve's employment would have been to exploit success in the forthcoming Allied offensive.<sup>46</sup>

Eisenhower, aware of Middleton's overextended sector, accepted this risk for three reasons. First, he did not want to take away combat power from the offensive occurring to the north and south of the VIII Corps sector. Second, his style of leadership was such that he did not choose to interfere with his subordinates, in this case Bradley and Hodges. Third, he and Bradley had always felt the risk to be justified by the conviction that in an emergency they could react swiftly. On the other hand, the risk to which the 12th Army Group commander subjected the VIII Corps in the Ardennes was not the carefully calculated one he later made it seem to be.<sup>47</sup>

It should be noted, however, that Bradley was not unaccustomed to operating without operational reserves. During Operation COBRA, for example, he employed no reserve. Similar to Napoleon at Austerlitz, Bradley exploited the rupture created by his leading units with

substantial, committed follow-on forces. Virtually all combat soldiers were committed to break the deadlock of the Bocage, thereby not creating a tactical liability by withholding forces at the operational level. Furthermore, Bradley indicated he never had a reserve in Tunisia or Sicily.<sup>48</sup>

Recalling Clausewitz's dictum that the more general the intended purpose of an operational reserve the less useful it becomes, the Allied reasoning for not maintaining reserves is sound. Operating on a broad front with limited manpower, the Allies could not constitute a significant operational reserve without creating gaps somewhere along the line. Additionally, faced with a vague enemy situation in the Ardennes due to a largely successful German deception effort, Eisenhower and his subordinate commanders chose not to retain operational-level reserves until the situation became clearer and more stable. They chose instead to reinforce lower-level commanders, particularly of division and corps, thus enabling them to better fight the current battle.<sup>49</sup>

The German Ardennes counteroffensive began early in the morning on 16 December and achieved initial success. Despite initial surprise, swift reactions by the Allied chain of command were decisive in eventually stabilizing the penetration. Gerow assumed defensive positions along Eisenborn Ridge on the northern shoulder of the penetration. Middleton, realizing the importance of several key road junctions to German success, and with the support of Hodges, decided to defend the towns of St. Vith, Bastogne, and Houffalize. Additionally, Middleton requested and received Hodges' reserve combat command, CCB,



9th Armored Division, which he then attached to his northern division.<sup>50</sup> Later, Middleton directed his own reserve, four engineer battalions and CCR, 9th Armored Division, to move forward to reinforce his dangerously weakened center.

Perhaps most important in terms of the eventual Allied success in the Battle of the Bulge was Bradley's decision, at Eisenhower's suggestion, to divert the 7th Armored Division from the 9th Army in the north and the 10th Armored Division from Patton's 3rd Army in the south to the control of Hodge's 1st Army. These divisions were committed from less threatened areas to assist in stopping the Germans by a combination of defense and limited counterattacks. By closing in on the flank of the German penetration with armored forces from elsewhere in his line, Eisenhower sought to profit greatly from the German attack. What was critical was that neither Bradley nor Eisenhower vacillated in the face of uncertainty. They did not withhold forces until the situation was more fully clarified. In fact, on 17 December Eisenhower released his only reserve, the XVIII Airborne Corps, to Bradley, who in turn released it to Hodges. As a result of these and other immediate actions, approximately 60,000 men and 11,000 vehicles had arrived or were moving to reinforce Hodge's 1st Army by midnight on 17 December.<sup>51</sup>

The major reason for the decisiveness and willingness with which Eisenhower and Bradley, as well as Middleton and perhaps Hodges, reacted and made decisions was the superior mobility advantage their forces had over the Germans. The mobile force structure of the American Army during World War II allowed operational commanders to shift forces rapidly on the battlefield, assume a certain degree of risk, and not

create tactical liabilities.<sup>52</sup> This mobility advantage, coupled with air superiority, enabled the Allies to react more quickly and with more lethality than the German forces to changing battlefield situations.

The Allies were operating at the time of the Ardennes on a broad front with limited manpower in terms of number of available divisions. This precluded the formation of an uncommitted operational reserve. However, given their decided mobility superiority over the Germans, the Allies could assume risk and commit virtually all of their combat power to their tactical echelons. Pressure could be applied tactically at many areas in the theater simultaneously, and if the need arose forces could be maneuvered laterally quickly. This again is consistent with Clausewitz's rule of simultaneous use of force. Additionally, his idea of operational setbacks in one area being able to be offset by gains in another, and in some cases by transferring troops from one area to another, is validated in this campaign.<sup>53</sup>

#### The Soviet 1945 Manchurian Offensive

The final historical example will reveal how establishment of the appropriate preconditions before operations begin can alleviate the need for significant operational reserves. By committing virtually all combat assets to the tactical level of warfighting, the operational commander attempts to ensure that tactical liabilities will be avoided. Establishing preconditions before decisive operations begin is analagous to AirLand Operations and the first and second stages of the Operational Cycle-- preparation for operations and establishing conditions for decisive operations.

Soviet planning began in the spring of 1945 for a final campaign to wrest from Japan the regions of Manchuria, northern Korea, southern Sakhalin Island, and the Kurile Islands. The resultant campaign validated the experiences the Soviet forces had gained in the war against Germany, and it represented the highest state of military art in Soviet World War II operations. The Soviet Manchurian experience showed their increased tendency to tailor the size of their armies to the conditions they expected to face. In Manchuria, the largest armies were deployed opposite the more heavily fortified sectors or main attack zones. These armies also received massive amounts of firepower in support. This tendency to tailor or task organize army composition indicates the maturity of Soviet force deployment and flexibility, gained from four years of warfare.<sup>54</sup> As will be seen, the Soviets accomplished this task organization in Manchuria by dispensing with operational reserves in favor of massing all available combat power at the tactical level.

The Japanese Kwangtung Army occupied Manchuria, a region over 1.5 million square kilometers in size. Japanese operational planning for this area was significantly driven by the low strength and readiness of its force. Planning for the Kwangtung Army shifted from offensive operations (before 1944) to realistic defense (in September 1944) and finally to the need to delay on the borders and defend deeper in Manchuria (in 1945). They developed the new strategy of delay followed by defense in May of 1945, essentially a Fabian strategy to confront the anticipated large-scale Soviet offensive into Manchuria.

The agreed-upon concept was that approximately one-third of the Kwangtung Army would deploy in the border region, with the remaining

two-thirds concentrated in operational depth to create a series of defensive lines. The Japanese hoped that rough terrain, long distances, and determined opposition would force the Soviet offensive to culminate before achieving its operational objectives. In the summer of 1945, the Japanese immediate challenge was to complete the unit redeployments necessary to implement this plan, and to complete the required fortification and construction plans. Neither of these programs was completed before the Soviet offensive began in August of 1945.

The Kwangtung Army was a major concern of Soviet planners up to the time of the Soviet attack. Having a formidable reputation, this army in August 1945 numbered 31 infantry divisions, nine infantry brigades, two tank brigades, and one special purpose brigade. All of this was formed into three area armies (each army the rough equivalent of a U.S. army group), a separate combined arms army, and one air army. The number of Japanese troops in Manchuria alone was over 713,000 men.<sup>55</sup>

Most Kwangtung Army intelligence agencies predicted that the Soviets would not conduct major operations in Manchuria until the fall of 1945--after the end of the rainy season--and possibly even as late as the spring of 1946. Consequently, the Japanese were completely surprised by the Soviet heavy attacks, which began shortly after midnight on 9 August 1945. Particularly incredible was the Soviet effort through the Grand Khinghan mountains, just inside the Manchurian western border and considered impenetrable by the Japanese. They considered a large-scale attack through this area to be logistically unsupportable given the difficulties of the terrain. As a result, the Japanese had concentrated their forces in central and eastern Manchuria,

with no real concentration in the west.<sup>56</sup>

Three Fronts conducted the Soviet offensive, all part of the Far Eastern Command. The Command's campaign objective was to secure Manchuria and destroy a large portion of the Japanese Kwangtung Army. Soviet planning reflected the need for swift operations designed to preempt Japanese defense plans and outflank their main defensive areas, avoid a protracted war, and guarantee Soviet control over Manchuria before the Japanese surrendered to the Allied powers in the Far East.<sup>57</sup> Therefore, even though they anticipated a difficult campaign when they entered Manchuria,<sup>58</sup> the plan had to be decisive. They had to apply overwhelming combat power against the Japanese by maximizing the combat capabilities of their tactical echelons.

The main effort of the Far Eastern Command was the Trans-Baikal Front (see Appendix C). This front, along with the other two, was tailored for high-speed, mobile operations. It received heavy vehicular and motorized rifle support so that it might conduct rapid, balanced combined arms operations. The Front was organized into two echelons of armies with the preponderance of combat power in the tactical formations to bring maximum pressure on the entire front and project power rapidly forward to great depths. What would normally have served as operational reserves, essentially highly mobile tank and mechanized forces, were allocated to the tactical echelons instead.

The first echelon had four combined arms armies (CAA) and one tank army, the second only one CAA. Only two rifle divisions, one tank division, and one tank brigade constituted the Front's operational reserve. Indeed, this can be considered virtually no operational reserves

when the size of the Front is taken into account. The Trans-Baikal Front numbered 654,040 men and was organized into 30 rifle divisions, two tank divisions, ten tank brigades, eight mechanized, motorized rifle, or motorized armored brigades, plus support units.<sup>59</sup> The reserve, therefore, constituted approximately only five percent of the total force. Furthermore, the reserve, largely foot-mobile infantry, would be unable to exert an operational influence on the campaign because of its lack of mobility and relatively insignificant numbers of tanks.

The Front's mission as the first pincer of a strategic envelopment was to secure objectives 350km into Manchuria 10-15 days after the operation began. Attacking through the Grand Khinghan mountains, two CAAs, the 17th and 39th, and one tank army, the 6th Guards, all in the first echelon, were to conduct the main attack and advance towards Changchun, ultimately securing objectives on a line Chihfeng-Mukden-Changchung in the heart of of central Manchuria. The Soviet-Mongolian Cavalry-Mechanized Group and the 36th Army, also in the first echelon, were to conduct supporting attacks on the flanks of the main attack. The second echelon of the Front consisted of the 53rd Army which was to follow the 6th Guards Tank Army and move into the Front first echelon after crossing the Grand Khinghan mountains.<sup>60</sup> The 53rd Army, therefore, was a committed force.

The Front's success depended on speed and surprise in order to penetrate quickly. Consequently, tank formations operated in the first echelon units at every level of command. Forward detachments, which were established from regimental to army level, enabled the essentially unhindered advance of their respective main bodies. In fact, the 6th

Guards Tank Army was in effect the forward detachment for the Front.<sup>61</sup> The primary reason for the resultant swift advance was that the forward detachments were strong enough to destroy most enemy resistance. These units were chiefly responsible for the rapidity of the Soviet advance.

Japanese resistance was encountered initially only in the 36th Army zone. The assault units in the other regions advanced virtually unopposed. The 6th Guards Tank Army, the Front's main effort, encountered limited opposition which enabled its forward detachments to advance 150kms to the foothills of the Grand Khinghan mountains. When the Japanese chose to defend at all, they defended the mountain passes with only token resistance. By 14 August the Trans-Baikal Front had crossed the Grand Khinghan mountains in all zones and was moving to secure the ultimate objectives of the campaign, the cities of Mukden and Changchun. Saddled with difficulty in supplying the fast-moving mechanized formations, the Front nonetheless enjoyed spectacular success. Only the 36th Army met significant resistance, mainly from the Japanese 80th Independent Mixed Brigade vicinity the city of Hailar, a major road and rail hub, and along the road and rail line through the mountains to Pokotu. These forces surrendered on 18 August, on which date organized resistance ceased all along the Front. The campaign, which had met with remarkable success, had ended.<sup>62</sup>

The success of the Trans-Baikal Front is attributable primarily to bold Soviet movement and ineffectual and dispirited Japanese response. What enabled the Soviets to execute such a bold campaign was the establishment of certain preconditions before the attack began. The

fulfillment of these operational preconditions further enabled them to operate without significant operational reserves. In fact, the Trans-Baikal Front's reserve, because of its small size, would have been of such operational insignificance had it been committed that it can be viewed as replacements or reinforcements rather than a force of true operational importance. This once again invokes the importance Clausewitz attached to an operational reserve force having significance and purpose in order for the retention of such to be valid.

The preconditions the Soviets developed included deception plans that enabled them to achieve complete tactical, operational, and strategic surprise, concentration of overwhelming combat power on all available avenues of advance, and planning for the simultaneous commitment of their forces from a strategic and operational perspective. Also, the Soviets attacked with their main effort where the Japanese opposition was the weakest and where a Soviet attack was least expected. Most significantly, the Soviets reorganized their forces based on an analysis of the mission to be accomplished, enemy forces and dispositions expected to be encountered, time available to conduct the operation, and the terrain over which they had to attack. This reorganization, or task organization, assigned nearly all available combat power to the tactical echelon.

By allocating nearly all combat power to the tactical level, and thereby dispensing with maintaining operational reserves, the Soviets were able to achieve favorable force ratios on their principal axes of advance. Along the Trans-Baikal Front, the Soviets began with force ratios along the main axes of 2.5 : 1 in men; from 5 to 8 : 1 in tanks; from



4 to 8 : 1 in guns; from 8 to 12 : 1 in mortars; and 3.6 : 1 in aircraft. Given this favorable correlation of forces, the Front and army commanders made them even more favorable by funneling their forces towards the crucial points of their attack. In other words, they massed their forces at the tactical level, achieving in some of the Front areas of advance ratios of 8 : 1 in men, 15 : 1 in tanks and self-propelled guns, and an absolute superiority in aircraft.<sup>63</sup>

Rather than operate with massed armored reserves as the Soviets did against the Germans, where the nature of the terrain and German defenses were different, these armored forces were used to form forward detachments in great number at every level of the operation, with great effect. These forward detachments effectively sustained the momentum of the initial assaults, thereby creating a momentum all of their own, and imparted that momentum to army and front operations as a whole.<sup>64</sup> Soviet forces attacked on several axes with a majority of forces well-forward in the first operational echelon to bring maximum pressure to bear on an already overextended enemy.

This has relevance today as we plan to operate under the concept of AirLand Operations. Phase one of the Operational Cycle, the detection and preparation phase, involves obtaining information about the enemy, terrain, time available, etc, as well as conducting movement planning, intelligence assessment, and intelligence preparation of the battlefield. Conditions for decisive maneuver, such as isolation of enemy units and synchronization of operational fires, are then established in phase two of the Cycle. These actions in phases one and two constitute many of the preconditions established by the Soviets before commencing their

offensive in Manchuria. In phase three of the Operational Cycle, overwhelming combat power is rapidly generated and applied in the form of maneuver forces at the decisive time and place on the battlefield.

### Conclusions

By establishing through proper analysis and assessment the right preconditions before operations, and by relying on superior mobility and enhanced lethality, the U. S. Army in a joint environment can execute successful operational maneuver without maintaining operational reserves. The advantage of this is that the simultaneous employment of all available combat power against the enemy would result in the commitment of overwhelming force applied to the enemy at the decisive time and place. Our emerging warfighting doctrine, AirLand Operations, is technologically-reliant and mobility- and firepower-based. Technology, in the form of JSTARS, mobility in the form of attack helicopters, tanks and other mobile systems, and firepower in the form of ATACMS and precision-guided munitions, all enable simultaneous commitment of forces of tremendous lethality throughout the operational depth of the theater of operations.

Operating in a cycle of dispersal-concentration-attack-dispersal, units in the future will have up-to-date information about the strength, disposition, and intentions of the enemy before decisive operations are conducted. Commanders will be able to see deep and laterally in real time and will possess a deep near-real-time engagement capability. With these capabilities, all available combat power can, therefore, be brought to bear to produce a synergistic, decisive effect.<sup>65</sup>

Regarding U.S. Army doctrinal definitions of operational reserves, more precision is needed. Operational reserves must be viewed differently from tactical reserves. While the tactical commander designates a reserve to prolong his battle and react to unanticipated enemy actions, and thereby commits his forces sequentially, the operational commander must strive for the simultaneous commitment of force. Currently, he is expected to specify a mission for his reserve that allows him to sequence his operation and achieve the desired outcome at the decisive point in the campaign.<sup>66</sup>

The issue arises, then, as to whether this force held initially in "reserve" is a committed or uncommitted force. If given a specific mission, logic would dictate calling it a committed force. If this is designed as a committed force to be employed sequentially in a subsequent phase of a campaign or major operation, confusion results when referring to this force as a reserve. Furthermore, operational reserves, in addition to maneuver units, may exist as fires, in the form of air support or highly mobile indirect systems such as ATACMS. Logistical resources, such as fuel or critical ammunition may function as reserves at the operational level. The point is that current definitions of operational-level reserves need to be clarified, broadened, and consistent with emerging warfighting doctrine. These definitions should discuss how operational reserves can be viewed as generated or "created" combat capabilities, and not exclusively the domain of standing forces.

The reality of current manpower shortfalls within the force may require commanders to form operational reserves just as U.S.

commanders did during the Battle of the Bulge. Committed units were shifted laterally from less threatened regions of the area of operations by taking advantage of their superior mobility, and used to form operational reserves as the situation dictated. Forces should not be held initially out of the fight in a purely reactionary role, uncommitted, for this might possibly create liabilities at the tactical level of fighting. As the campaign progresses from one battle to the next, operational commanders should be able to generate reserves provided their formation is warranted.

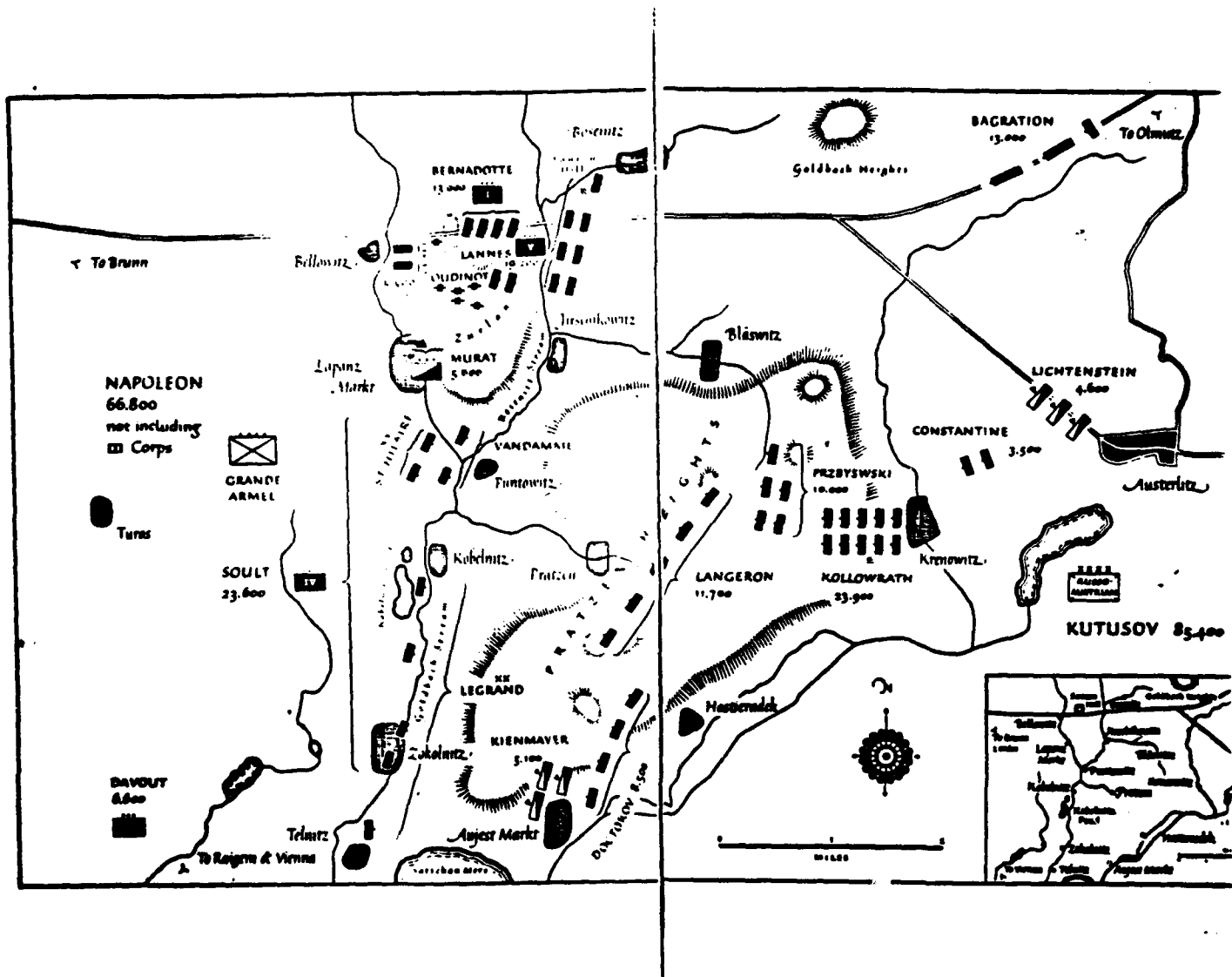
Establishing certain preconditions, such as convincing deception plans in order to achieve surprise, accurate analysis of the area of operations and how the enemy will fight, massing forces along critical axes of advance, and plans for the simultaneous use of overwhelming force may alleviate the need for formation and maintenance of operational reserves. These preconditions were established by the Soviets in their Manchuria campaign and relate directly to our emerging warfighting doctrine.

The classical use of operational reserves, as Napoleon used them at Austerlitz, in which maneuver forces are held from battle initially and victory usually goes to the commander who last commits his reserves, may no longer be viable. Rather than husbanding forces for eventual employment to maintain momentum or react to unexpected enemy initiatives, operational commanders must be able to correctly anticipate the flow of the campaign or major operation and ensure the maximum possible concentration of combat capability at the decisive time and place. To do this they must reduce uncertainty about how their enemy

fights, the nature of the area of operations, and the objectives they are to accomplish. This uncertainty must be reduced to an absolute minimum in phases one and two of the Operational Cycle. As Clausewitz indicated, the more uncertainty could be reduced, the less the need for operational reserves.

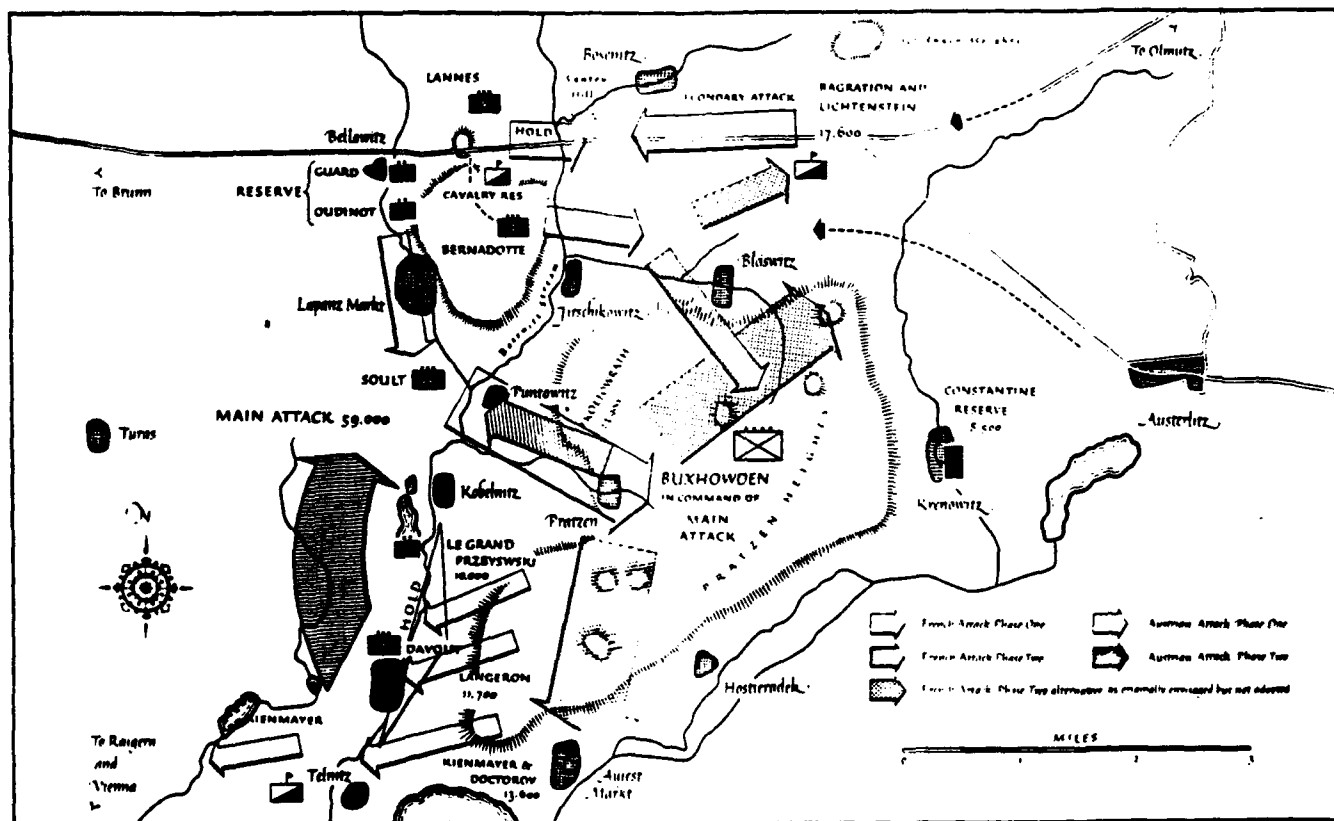
Tactical liabilities should not be created, nor, given future strength cuts in the armed forces, can they afford to be created on the battlefield. Operational artists must be willing to rely on generating operational forces from less threatened areas, accepting prudent risks, and ensuring that battles and engagements are properly resourced and planned to create the tactical successes that produce operational success.

Appendix A: Battle of Austerlitz, late evening, 1 December, 1805.



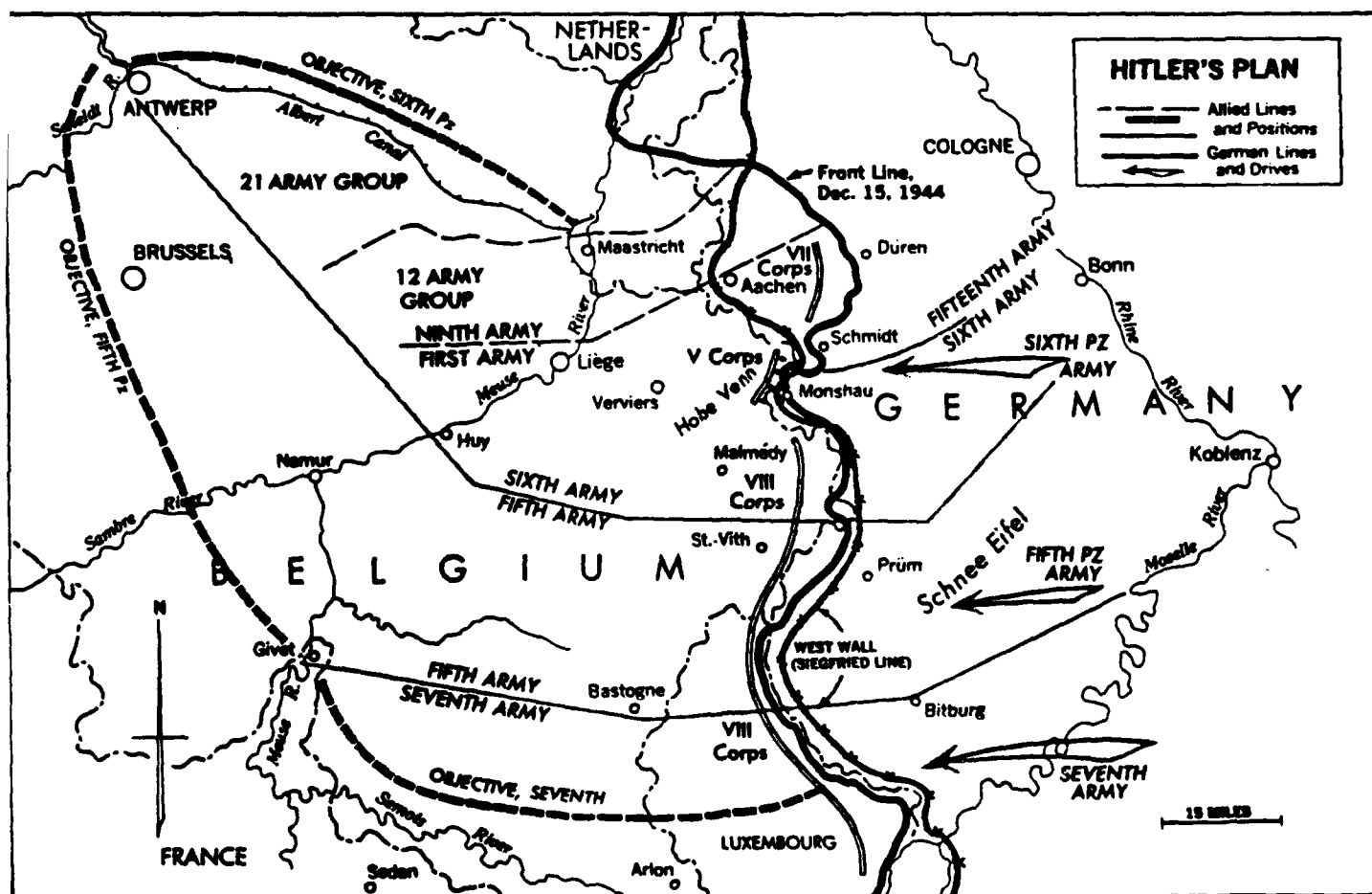
Source: Chandler, David G. The Campaigns of Napoleon. New York: Macmillan Publishing Company, 1966, pp. 418-9.

### Battle of Austerlitz, Allied and French plans.



Source: Chandler, David G. The Campaigns of Napoleon. New York: Macmillan Publishing Company, 1966, p. 423.

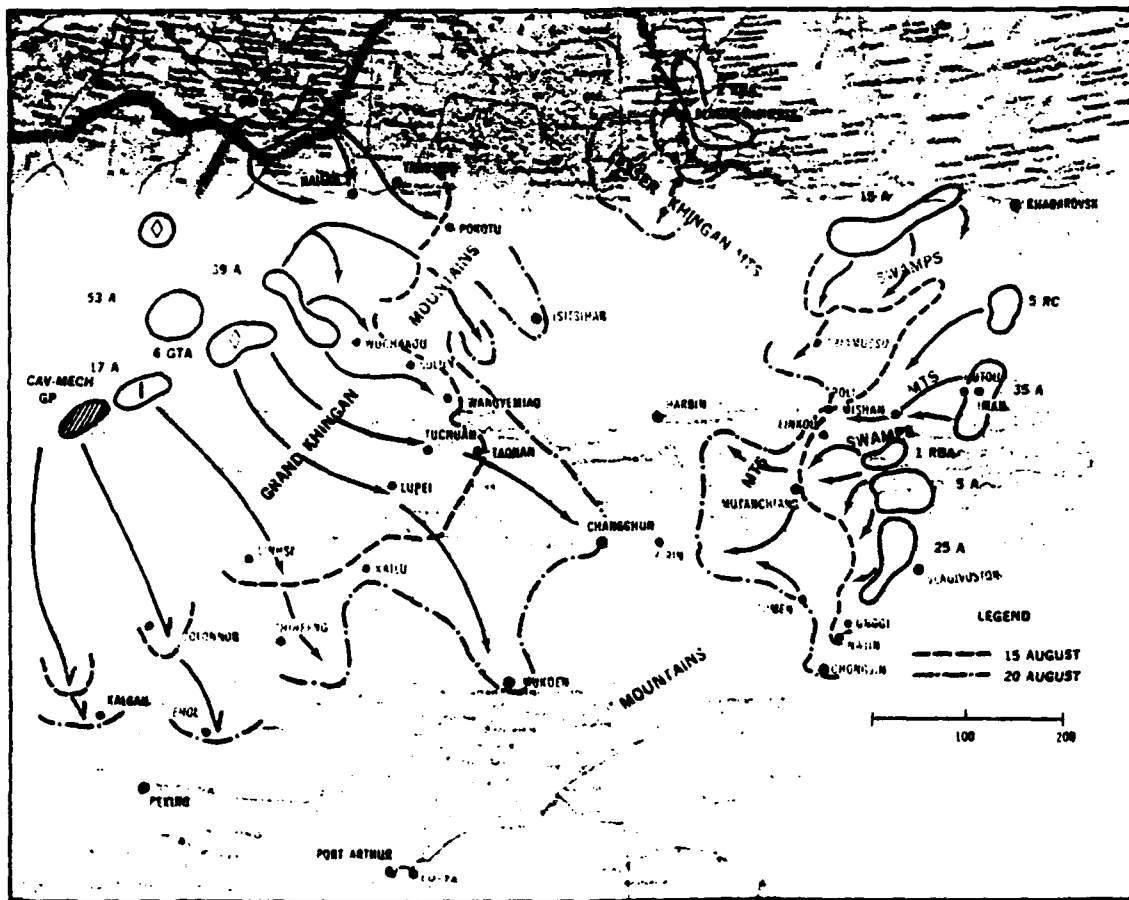
Appendix B: The Ardennes, Allied dispositions and the German plan.



Source: Eisenhower, John S.D. The Bitter Woods. Nashville: The Battery Press, 1969, p. 114.

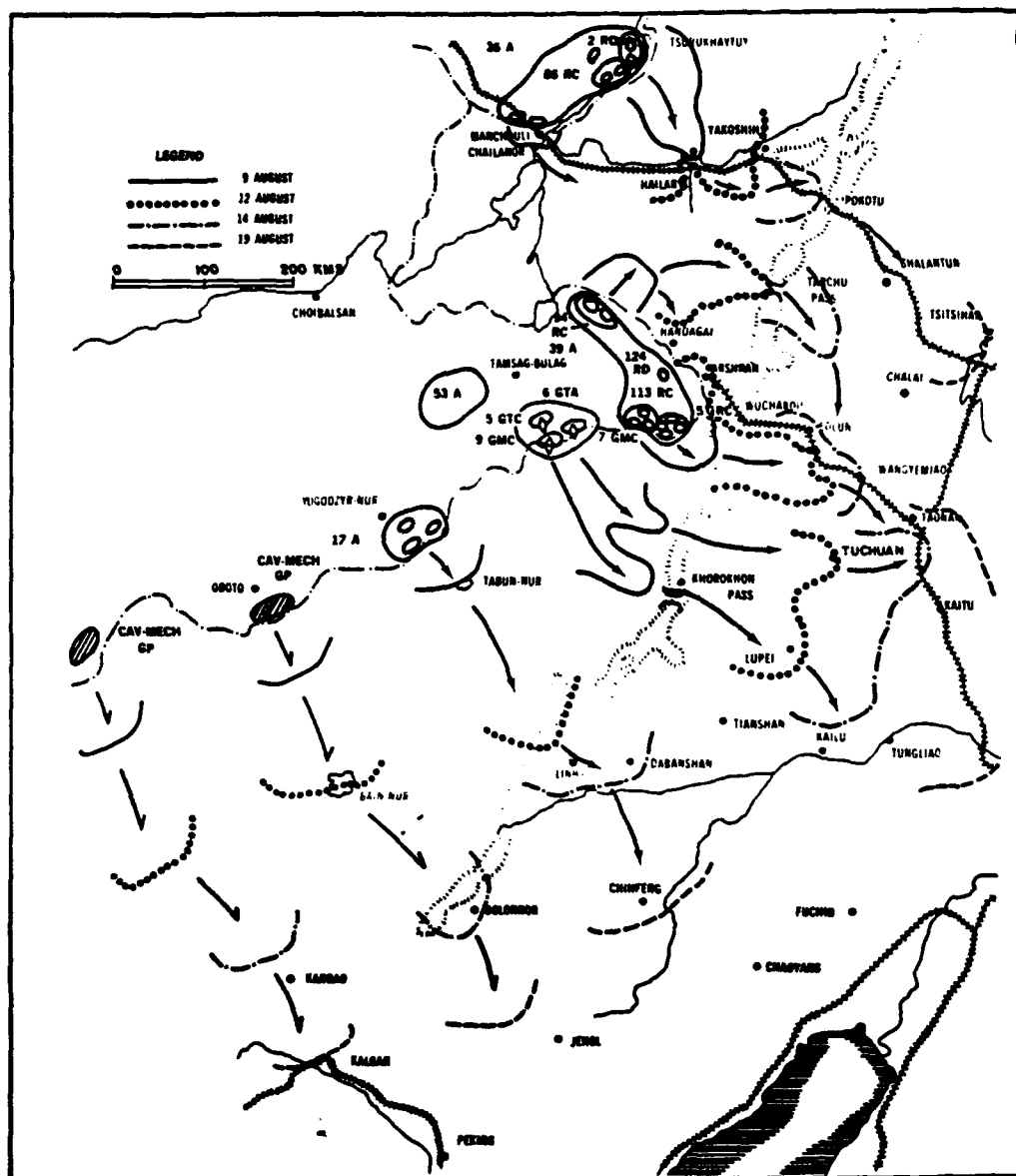


Appendix C: Soviet Far East Command Operations, 9-20 August, 1945.



Source: Glantz, David M. August Storm: The Soviet 1945 Strategic Offensive in Manchuria. Leavenworth Paper No. 7. Fort Leavenworth: USACGSC, February 1983, p. 75.

### Soviet Trans-Baikal Front Operations, 9-19 August 1945.



Source: Glantz, David M. August Storm: The Soviet 1945 Strategic Offensive in Manchuria. Leavenworth Paper No. 7. Fort Leavenworth: USACGSC, February 1983, p. 85.

## ENDNOTES

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4. FM 101-5-1, 21 October 1985, p. 1-17.
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29. Richard E. Simpkin, Deep Battle, (London, 1987), p. 269.
30. Jack W. Ellerston and Alan K. Huffman, "Joint Precision Interdiction In the Post-CFEh Environment," Military Review (July 1991), pp. 45-52.
31. Robert M. Epstein, "The Different Levels of War In the Napoleonic Period--Austerlitz and Friedland," (USACGSC-SAMS, 1989), pp. 12-3; James R. Arnold, "Bold Gambles Unexpected Crises," Military History, (October 1986), pp. 26-33.
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36. Arnold, "Bold Gambles Unexpected Crises," p. 31.
37. Epstein, "The Different Levels of War In the Napoleonic Period...", pp. 20-30; Chandler, The Campaigns of Napoleon, 430-32, 437; Arnold, "Bold Gambles Unexpected Crises," pp. 30-3; Christopher Duffy, Austerlitz

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